

**Lancaster Laboratories Analytical Report**  
2425 New Holland Pike, Lancaster, PA 17603

**Sample Number: SW 4736394**

BH-03-06-032206-1.5-2 Grab Soil Sample  
SUN: Philadelphia Refinery AOI-6

Account: 10132  
Langan  
Suite 200  
2700 Kelly Road  
Warrington PA 18976

Collected: 03/22/2006 09:30 by MBS  
Submitted: 03/24/2006 15:50  
Reported: 05/11/2006 at 10:06  
B0306

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Units	Dilution Factor
06955	Lead	7439-92-1	1,650.	2.92	1.14	mg/kg	1
00111	Moisture	n.a.	33.5	0.50	0.50	%	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

Commonwealth of Pennsylvania Lab Certification No. 36-037

**Laboratory Chronicle**

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06955	Lead	SW-846 6010B	1	03/29/2006 02:59	Eric L Eby	1
00111	Moisture	EPA 160.3 modified	1	03/29/2006 09:29	William C Schwebel	1

**Sample Number: SW 4736395**

BH-02-06-032206-1.5-2 Grab Soil Sample  
SUN: Philadelphia Refinery AOI-6

Account: 10132  
Langan  
Suite 200  
2700 Kelly Road  
Warrington PA 18976

Collected: 03/22/2006 10:05 by MBS  
Submitted: 03/24/2006 15:50  
Reported: 05/11/2006 at 10:06  
B0206

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Units	Dilution Factor
06955	Lead	7439-92-1	1,260.	3.40	1.33	mg/kg	1
00111	Moisture	n.a.	43.5	0.50	0.50	%	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

Commonwealth of Pennsylvania Lab Certification No. 36-037

**Laboratory Chronicle**

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06955	Lead	SW-846 6010B	1	03/29/2006 03:03	Eric L Eby	1
00111	Moisture	EPA 160.3 modified	1	03/29/2006 09:29	William C Schwebel	1

**Sample Number: SW 4736397**

Account: 10132

\*This limit was used to evaluate the final result

ReferenceID: 983014110506105I53

**Lancaster Laboratories Analytical Report**  
2425 New Holland Pike, Lancaster, PA 17603

**Sample Number: SW 4736397**

BH-14-06-032306-0.5-1 Grab Soil Sample

SUN: Philadelphia Refinery AOI-6

Langan  
Suite 200  
2700 Kelly Road  
Warrington PA 18976

Collected: 03/23/2006 07:50 by MBS

Submitted: 03/24/2006 15:50

Reported: 05/11/2006 at 10:06

B1406

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Units	Dilution Factor
06955	Lead	7439-92-1	1,040.	2.87	1.12	mg/kg	1
00111	Moisture	n.a.	33.1	0.50	0.50	%	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

Commonwealth of Pennsylvania Lab Certification No. 36-037

**Laboratory Chronicle**

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06955	Lead	SW-846 6010B	1	03/29/2006 03:10	Eric L Eby	1
00111	Moisture	EPA 160.3 modified	1	03/29/2006 09:29	William C Schwebel	1

\*This limit was used to evaluate the final result

ReferenceID: 983014110506105153

## Lancaster Laboratories

### Explanation of Symbols and Abbreviations

*The following defines common symbols and abbreviations used in reporting technical data:*

<b>N.D.</b>	none detected	<b>BMQL</b>	Below Minimum Quantitation Level
<b>TNTC</b>	Too Numerous To Count	<b>MPN</b>	Most Probable Number
<b>IU</b>	International Units	<b>CP Units</b>	cobalt-chloroplatinate units
<b>umhos/cm</b>	micromhos/cm	<b>NTU</b>	nephelometric turbidity units
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>Cal</b>	(diet) calories	<b>lb.</b>	pound(s)
<b>meq</b>	milliequivalents	<b>kg</b>	kilogram(s)
<b>g</b>	gram(s)	<b>mg</b>	milligram(s)
<b>ug</b>	microgram(s)	<b>l</b>	liter(s)
<b>ml</b>	milliliter(s)	<b>ul</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>fib &gt;5 um/ml</b>	fibers greater than 5 microns in length per ml
<b>&lt;</b>	less than – The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million – One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture.		

*U.S. EPA data qualifiers:*

#### Organic Qualifiers

<b>A</b>	TIC is a possible aldol-condensation product
<b>B</b>	Analyte was also detected in the blank
<b>C</b>	Pesticide result confirmed by GC/MS
<b>D</b>	Compound quantitated on a diluted sample
<b>E</b>	Concentration exceeds the calibration range of the instrument
<b>J</b>	Estimated value
<b>N</b>	Presumptive evidence of a compound (TICs only)
<b>P</b>	Concentration difference between primary and confirmation columns >25%
<b>U</b>	Compound was not detected
<b>X,Y,Z</b>	Defined in case narrative

#### Inorganic Qualifiers

<b>B</b>	Value is <CRDL, but ≥IDL
<b>E</b>	Estimated due to interference
<b>M</b>	Duplicate injection precision not met
<b>N</b>	Spike amount not within control limits
<b>S</b>	Method of standard additions (MSA) used for calculation
<b>U</b>	Compound was not detected
<b>W</b>	Post digestion spike out of control limits
<b>*</b>	Duplicate analysis not within control limits
<b>+</b>	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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